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A BIBLIOGRAPHY OF WEATHER MODIFICATION EXPERIMENTS.(U)
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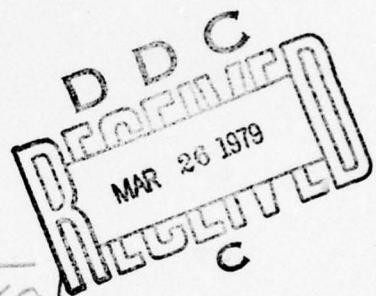
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(6) A BIBLIOGRAPHY OF WEATHER MODIFICATION EXPERIMENTS.
by

(10) Morgan A./Hanson, Lawrence E./Barker, Charles L./Bach,
Edward A./Cooley, Charles H./Hunter
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A BIBLIOGRAPHY OF WEATHER MODIFICATION EXPERIMENTS

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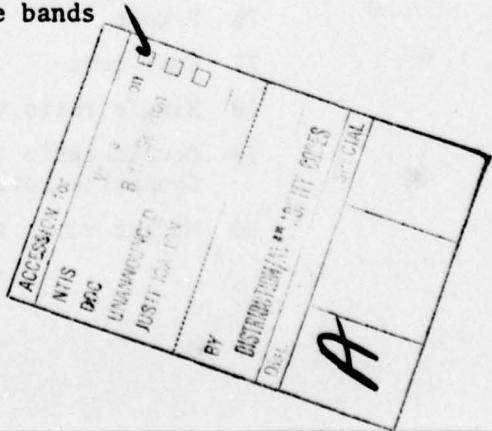
INTRODUCTION

This bibliography has been compiled within the Departments of Statistics and Meteorology at Florida State University as part of an Office of Naval Research sponsored investigation into the analysis of weather modification experiments. The compilation has involved a systematic search of all available relevant meteorological and statistical journals, reports of symposia, and cross checks of references in the sources. Any omissions are the result of oversight or the unavailability of relevant material.

Each experiment has been coded as follows below: (for example, 14-131-51-74 means that a crossover design was used with air generated silver iodide as the seeding agent. Rain gauges were used to measure the results, and the analysis was carried out by t-test).

Experimental Design

- | | |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 11 Two sample using control | 15 Single cloud seeding |
| 12 Two sample using historical records | 16 Paired cloud seeding |
| 13 Two sample using estimate of normal rainfall from meteorological parameters | 17 Multiple cloud seeding, with randomly selected unseeded clouds |
| 14 Crossover design | 18 Random seeding of convective bands |



- | | | | |
|----|---------------------------|----|------------------|
| 19 | Periodic Seeding | 21 | Factorial design |
| 20 | Areal Pattern recognition | 22 | None given |

Type of Seeding

Prefix 1 - air generated

Prefix 2 - ground generated

Prefix 3 - both air and ground generated

- | | | | |
|----|-----------------------------------|----|--------------------------------------------------|
| 31 | Silver iodide | 38 | Gasoline engine exhaust;
industrial pollution |
| 32 | Dry ice | 39 | Morpholine, Ethylamine |
| 33 | Water | 40 | Portland cement |
| 34 | Sodium iodide | 41 | Ammonium iodide |
| 35 | Sodium chloride | 42 | Ammonium nitrate |
| 36 | Lead aerosols | 43 | Urea |
| 37 | Burning vegetation;
urban heat | 44 | Phloroglucinol |
| | | 45 | Not specified |

Response Variables

- | | | | |
|----|----------------------------------------------------|----|------------------------------------------------------|
| 51 | Rain gauges | 57 | Radar - rainfall/hail/snow |
| 52 | Stream flows; reservoir
runoff | 58 | Radiosonde |
| 53 | Snow measurements | 59 | Visual; photographs; photo
grammetry; crop damage |
| 54 | Ice counters | 60 | General weather data |
| 55 | Particle or drop collectors;
Spectrophotometers | 61 | Cloud texture |
| 56 | Radar - cloud census | 62 | Hail indicators |

Statistical Techniques

- | | | | |
|----|--------------------------------------------|----|--------------------------------|
| 71 | Regression | 81 | Multivariate analysis |
| 72 | Correlation | 82 | Analysis of variance |
| 73 | z-test | 83 | Analysis of covariance |
| 74 | t-test | 84 | Pattern analysis |
| 75 | Chi-square test | 85 | Rank sum test |
| 76 | F-test | 86 | Sign test; Signed rank
test |
| 77 | C(α) test | 87 | Squared rank sum test |
| 78 | Single ratio test | 88 | Rank Correlation |
| 79 | Double ratio test;
Composite ratio test | 89 | Kolmogorov-Smirnov test |
| 80 | Median ratio test | 90 | None given |

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